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## Nilight 50119G

# Nilight 622PCS 1-6 Pin Waterproof Electrical Connector Set

User Manual for Model 50119G

## 1. INTRODUCTION

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This manual provides detailed instructions for the proper use, installation, and maintenance of your Nilight 622PCS 1-6 Pin Waterproof Electrical Connector Set. This set is designed for reliable and secure electrical connections in various environments, particularly where moisture and dust protection are essential. Please read this manual thoroughly before use to ensure optimal performance and safety.



Image: The Nilight 622PCS 1-6 Pin Waterproof Electrical Connector Set, showcasing the various connector types and terminals organized in a clear plastic case.

## 2. PACKAGE CONTENTS

Your Nilight 622PCS Electrical Connector Set includes the following components:

- 10 x 1 Pin Male Connectors
- 10 x 1 Pin Female Connectors
- 8 x 2 Pin Male Connectors
- 8 x 2 Pin Female Connectors
- 8 x 3 Pin Male Connectors
- 8 x 3 Pin Female Connectors
- 6 x 4 Pin Male Connectors
- 6 x 4 Pin Female Connectors
- 6 x 5 Pin Male Connectors
- 6 x 5 Pin Female Connectors

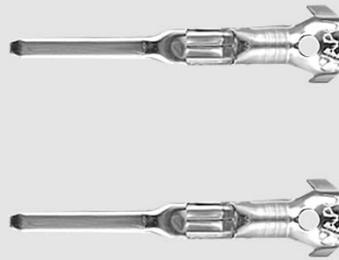
- 5 x 6 Pin Male Connectors
- 5 x 6 Pin Female Connectors
- 134 x Male Terminals
- 134 x Female Terminals
- 268 x Silicone Rubber Cable Seals
- 1 x User Manual

**622 PCS**

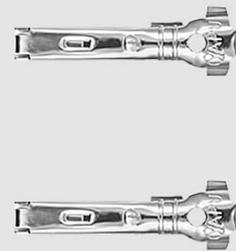
**43 SETS**



**268pcs**



**134pcs**



**134pcs**



**1pin(20sets)**



**2pin(20sets)**



**3pin(20sets)**



**4pin(10sets)**



**5pin(10sets)**



**6pin(10sets)**

## PACKAGE INCLUDE

Image: A visual breakdown of the 622 components, including various pin connectors, terminals, and cable seals, along with their respective quantities.

### 3. PRODUCT FEATURES

- **High-Precision Copper Plating:** Improves conductivity for reliable electrical connections.
- **Waterproof and Dustproof Design:** Equipped with rubber seals and a buckle design to prevent water and dust ingress, ensuring stable performance in harsh conditions.
- **Durable Materials:** Made from PA66 nylon and nickel-plated copper for high chemical stability, electrical conductivity, and resistance to wear.

- **Secure Connection:** The buckle design ensures terminals are accurately and completely inserted and prevents accidental disconnection.
- **Versatile Application:** Suitable for a wide range of vehicles and electrical systems, including motorcycles, cars, trucks, boats, and LED lighting.

## NYLON



Anti-oxidation , waterproof , dustproof and has high toughness , can be bent to a certain extent and is not easy to break.

## COPPER



With improved plug-in contact conductivity.

# MATERIAL QUALITY

Image: Illustration of the material quality, highlighting the durable nylon for the connector housing and high-precision copper for the terminals.



**Lock buckle design**



**Fully sealed rubber sleeve**

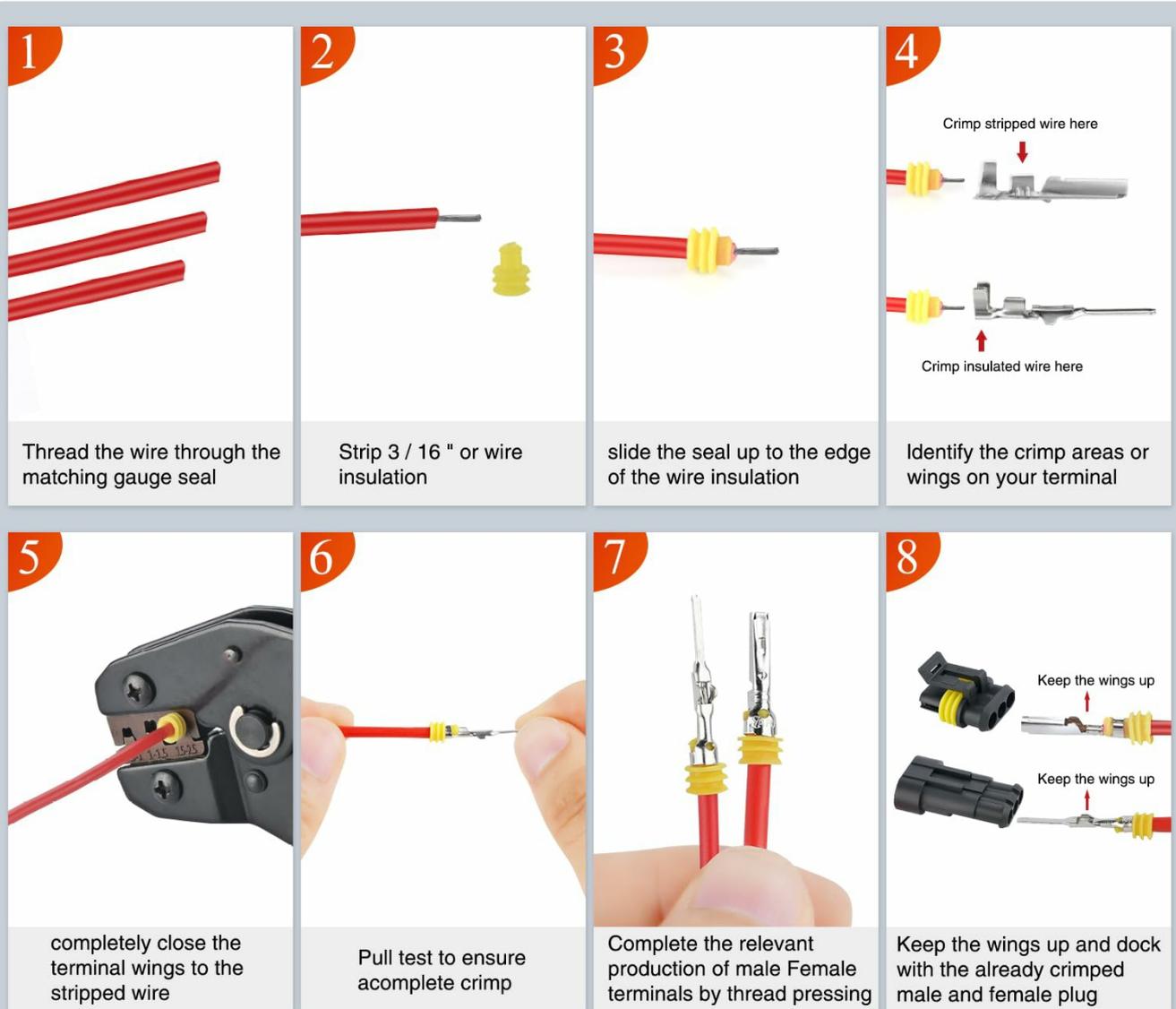
## IP68 WATERPROOF

Image: Demonstration of the IP68 waterproof design, featuring the lock buckle and fully sealed rubber sleeve for environmental protection.

### 4. SETUP AND INSTALLATION

Follow these steps for proper installation of the electrical connectors:

1. **Prepare the Wire:** Thread the wire through the matching gauge seal.
2. **Strip Insulation:** Strip approximately 3/16" (or 4.7mm) of wire insulation.
3. **Position Seal:** Slide the cable seal to the edge of the wire insulation.
4. **Identify Crimp Areas:** Locate the crimp areas or "wings" on your terminal.
5. **Crimp Terminal:** Insert the stripped wire into the terminal and completely close the terminal wings using a suitable crimping tool. Ensure a secure crimp on both the wire conductor and the insulation.
6. **Test Crimp:** Gently pull on the wire to ensure a complete and secure crimp.
7. **Repeat for Terminals:** Complete the relevant production of male and female terminals by crimping them to their respective wires.
8. **Insert into Housing:** Keep the terminal wings facing up and carefully dock the already crimped male and female terminals into their corresponding connector plugs until they click into place.



# INSTALLATION

Image: A visual eight-step guide demonstrating the process from preparing the wire to inserting the crimped terminals into the connector housing.

## 5. OPERATING INSTRUCTIONS

Once the terminals are securely installed into their respective male and female connector housings, connecting and disconnecting is straightforward:

- **Connecting:** Align the male and female connector plugs and push them firmly together until you hear a click. The buckle design will engage, ensuring a secure and waterproof connection.
- **Disconnecting:** To disconnect, press down on the locking tab of the connector and pull the two halves apart. Avoid pulling directly on the wires to prevent damage.

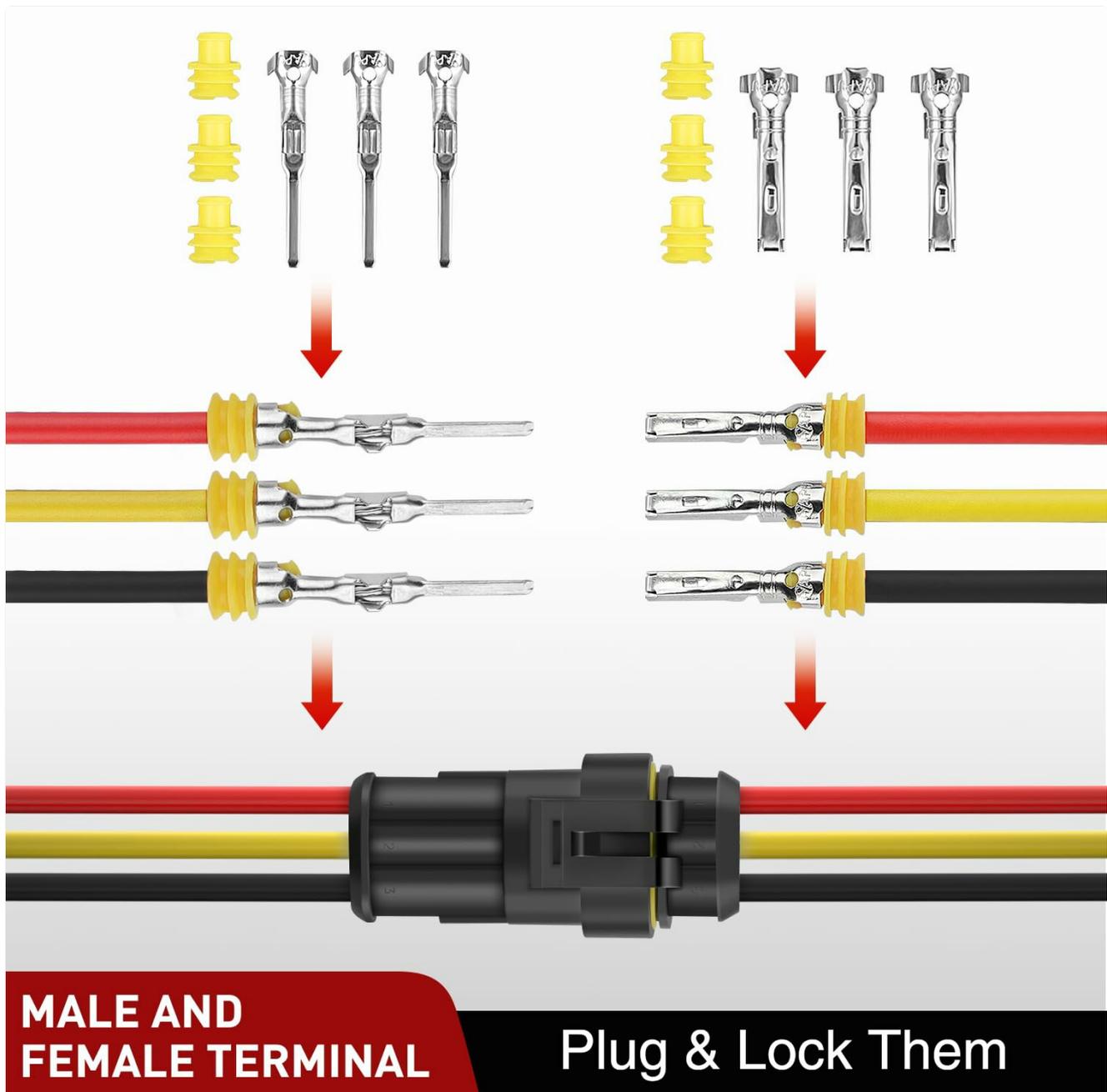


Image: A diagram showing how male and female terminals are inserted and locked into the connector housing to form a complete connection.

## 6. MAINTENANCE

These connectors are designed for durability and minimal maintenance. To ensure long-lasting performance:

- **Regular Inspection:** Periodically check connections for any signs of wear, corrosion, or damage to the housing or seals.
- **Cleaning:** If connectors become dirty, gently wipe them with a clean, dry cloth. Avoid using harsh chemicals or abrasive materials.
- **Proper Handling:** Always use the locking tab when disconnecting to prevent stress on the wires and terminals.
- **Storage:** Store unused connectors and components in a dry, clean environment, preferably in their original organizer box, to protect them from dust and physical damage.

## 7. TROUBLESHOOTING

If you encounter issues with your electrical connections, consider the following:

- **Loose Connection:** Ensure both male and female connectors are fully engaged and the locking tab is secure. A weak crimp on the terminal can also lead to a loose connection; re-crimp if necessary.
- **No Power/Intermittent Power:**
  - Verify that the wires are correctly crimped to the terminals and that the terminals are fully inserted into the connector housing.
  - Check for any damaged wires or terminals.
  - Ensure the power source is active and properly connected.
- **Water Ingress:** While designed to be waterproof, improper installation of the cable seals or damaged seals can compromise protection. Ensure seals are correctly positioned and undamaged during installation.
- **Difficulty Connecting/Disconnecting:** Ensure connectors are aligned correctly. Do not force connections. If a connector is stiff, check for debris or damage.

## 8. SPECIFICATIONS

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Feature	Detail
Model Number	50119G
Connector Type	Pin (1-6 Pin Male & Female)
Contact Material	Copper (Nickel Plated)
Insulation Material	PA66 Nylon
Waterproof Rating	IP68 (when properly installed)
Wire Gauge Compatibility	Designed for 16 AWG (American Wire Gauge)
Package Dimensions	10.75 x 7.32 x 1.73 inches
Item Weight	1.44 pounds



## PRODUCT SIZE

Image: Detailed dimensions for each connector type (1-pin to 6-pin) and the overall package size.

## 9. APPLICATIONS

The Nilight Waterproof Electrical Connector Set is highly versatile and suitable for a broad range of applications, including but not limited to:

- **Automotive:** Cars, Trucks, Scooters, Quad bikes, Trikes
- **Marine:** Boats, RVs, Jet Skis
- **Lighting:** Connecting LED light bars, LED strips, LED wall-washers, LED underground lights, LED belt lights, curtain lights, twinkle lights, and other outdoor or vehicle lighting.
- **General Electrical:** Any application requiring a reliable, waterproof, and dustproof quick-connect electrical connection.



Use for cars , trucks , boats , motorcycle, trailers , scooter , quad bike , trike, caravan , marine , jet ski and other wire connections.

## APPLICATION

Image: Examples of common applications for these connectors, including cars, trucks, RVs, motorcycles, jet skis, and boats.

### 10. WARRANTY AND SUPPORT

Nilight products are manufactured to high-quality standards. For specific warranty information or technical support, please refer to the product packaging or visit the official Nilight website. Keep your purchase receipt for warranty claims.

For further assistance, you may contact Nilight customer service through their official channels.